

REMARKS

This preliminary amendment is submitted upon filing a Request for Continued Examination (RCE) after the final rejection of March 23, 2005.

Also concurrently filed is a proposal for correction of the drawings. The proposal is to correct the reference numbers for shallow pocket secondary implant regions and deep pocket secondary implant regions. The affected drawings are FIGs. 11 – 15, 17 – 21, 23 – 27, and 29 – 33. No new matter is added by these corrections.

Amendment to the Specification is also submitted herewith. The Specification is amended to correct typographical errors and to correct descriptions of some features illustrated in the drawings. For example, paragraphs [0043], [0044], [0062], [0064], [0065], [0070], [0071], [0074], [0076], [0077], [0080], [0082], [0083] and [0086] are amended to correct typographical errors in some of the reference numerals. Further, paragraphs [0048], [0049], [0068], [0074] and [0080] are amended to correctly describe the features illustrated in the Figures being described therein and to use consistent terminology. These features of the invention are readily apparent from the drawings as originally filed.

I. Claim Rejections

In the final rejection, examiner rejected claims 1 and 22 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,449,937 to Arimura *et al.* ("Arimura"). Examiner states that "Arimura discloses in Figure 1A a semiconductor device comprising a source (13s), a gate (6), a drain (13d), a single deep-pocket ion implant (10) in the source-drain depletion region at the drain side, and a single shallow-pocket ion implant (11s) in the source-drain depletion region at the source side."

In response, claim 1 has been amended to recite as follows:

A semiconductor device comprising:
a source, a gate and a drain;
a source-drain depletion region in a substrate under the
gate;
a single deep-pocket ion implant and a single shallow-
pocket ion implant provided in the source-drain depletion region in
a staggered configuration, wherein the semiconductor device
contains only one deep-pocket ion implant and only one shallow-
pocket ion implant.

(underline emphasis added). As shown by the highlighted text, amended claim 1 requires that semiconductor device has only one of each deep-pocket ion implant and shallow-pocket ion implant and they are in a staggered configuration. This amendment is fully supported by the disclosure in the originally filed Specification and no new matter is added. For example, this aspect of the invention is clearly shown in the drawings as originally filed.

In contrast, the device disclosed in Arimura has pocket ion implants on both the source side and the drain side of the device and they are not in staggered configuration. Arimura does not teach or suggest providing the deep-pocket and shallow-pocket ion implants in a staggered configuration.

Accordingly, amended claim 1 is allowable over Arimura. Reconsideration of the amended claim 1 and its allowance are requested.

Claim 15 which depends from amended claim 1, remains in dependent form because applicants believe that the amended claim 1 is now in allowable over Arimura.


Claims 16 and 22 are canceled without prejudice.

New claims 23 and 24 that depend from the allowable amended claim 1 are added. Further, new independent claims 25 and 26 are added to more clearly claim additional embodiments of the invention. Applicants believe that claims 25 and 26 are also allowable over the cited reference Arimura.

II. Conclusion

Applicants believe that all outstanding issues raised in the final rejection have been addressed herein and the pending claims 1, 15, and 23-26 are in condition for allowance. A reconsideration of the application and allowance of the claims presented herein are requested.

Respectfully submitted,



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Enclosures: RCE transmittals; 4 sheets of Annotated Marked-Up Drawings containing FIGs. 10-34; and 19 sheets of Formal Drawings containing FIGs. 1-36.

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Annotated Marked-Up Drawings

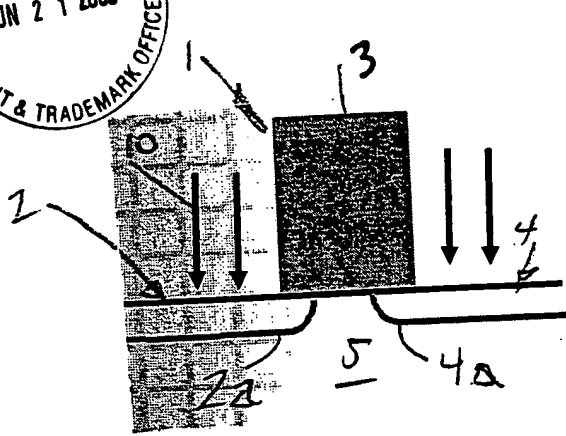


Fig. 10

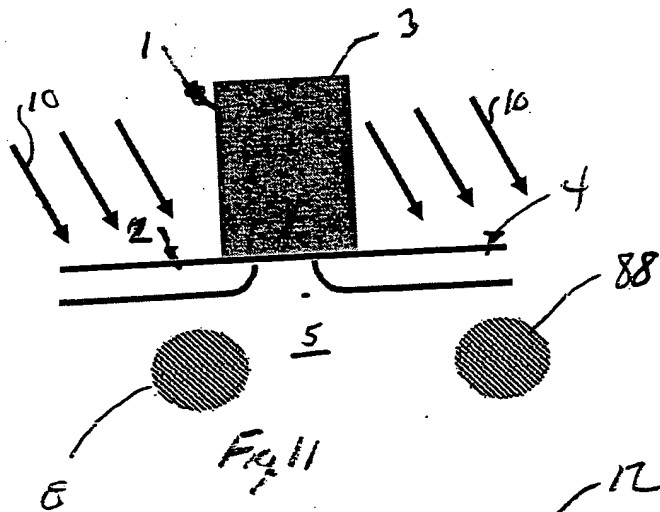


Fig. 11

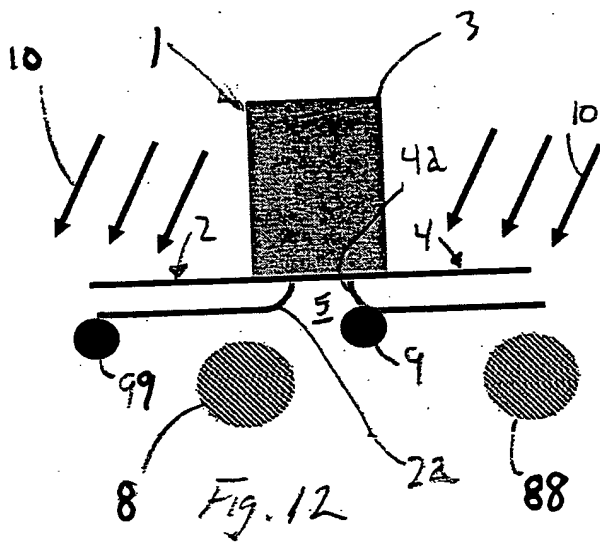


Fig. 12

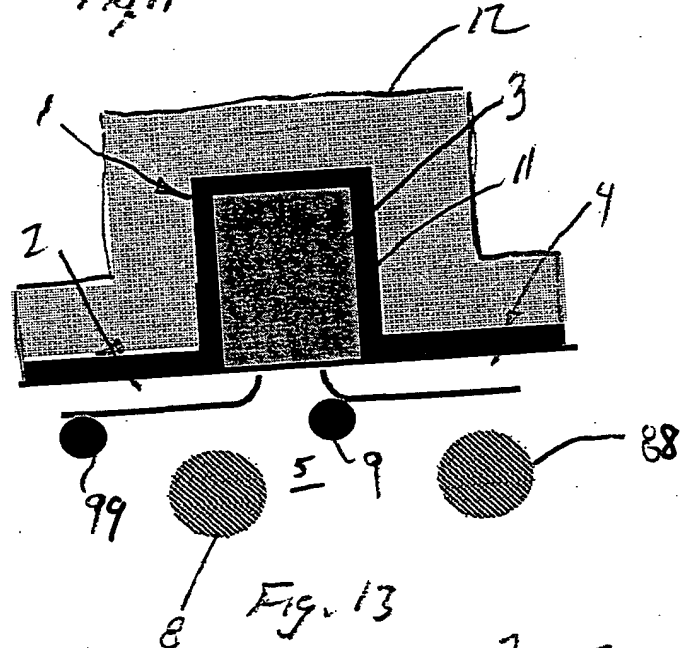


Fig. 13

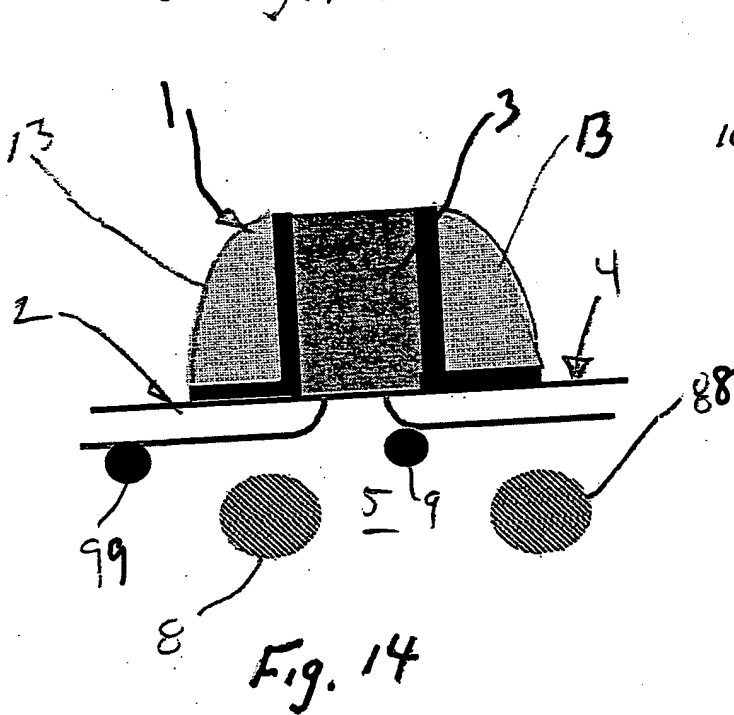


Fig. 14

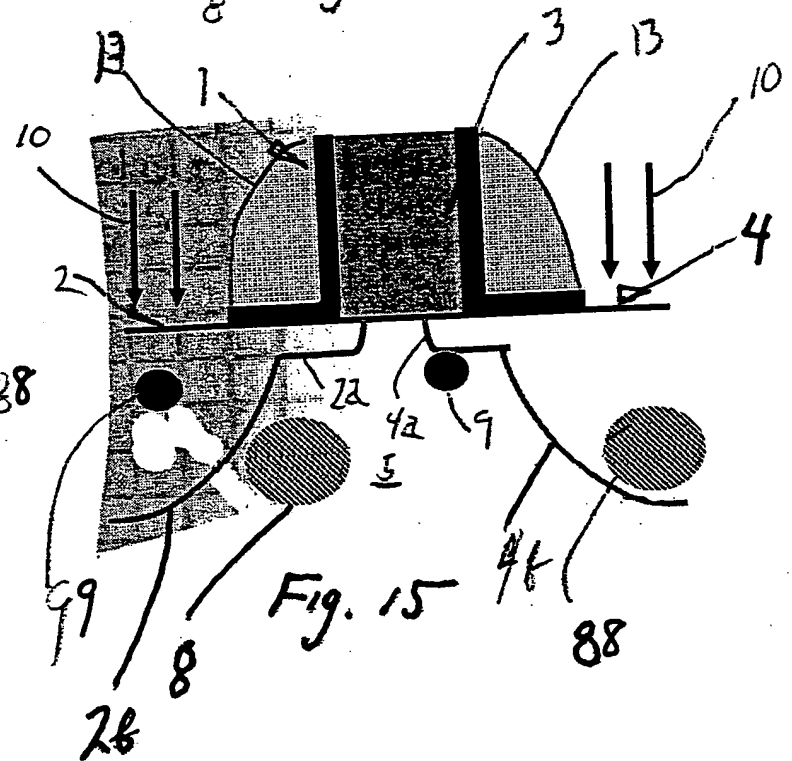


Fig. 15

Annotated Marked-Up Drawings

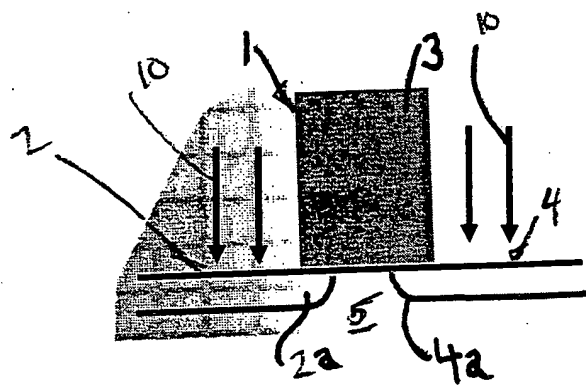


Fig. 16

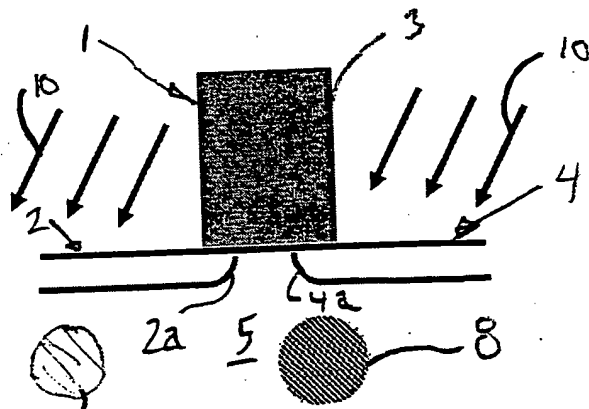


Fig. 17

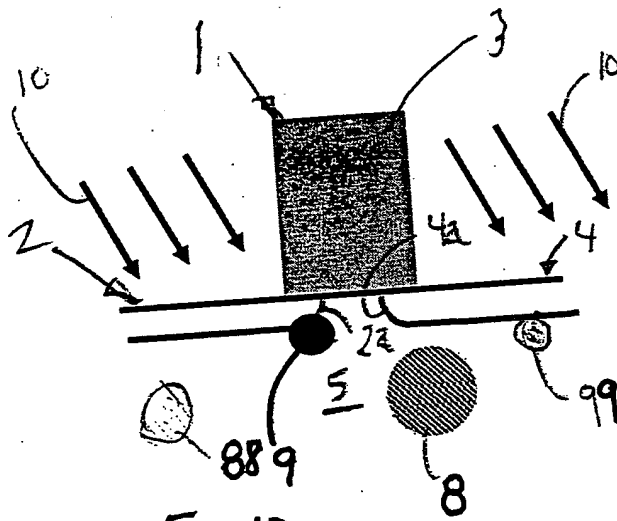


Fig. 18

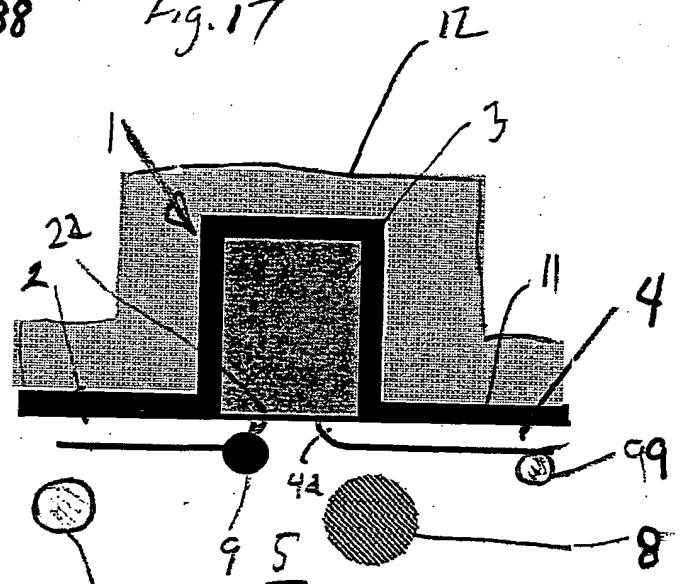


Fig. 19

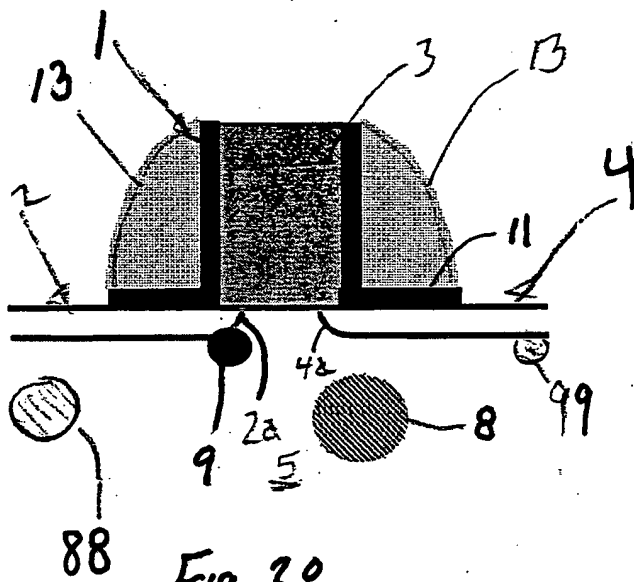


Fig. 20

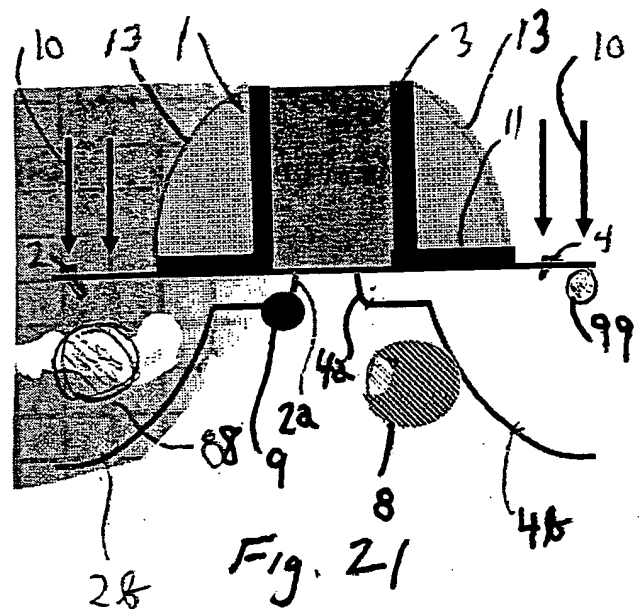


Fig. 21

Annotated Marked-Up Drawings

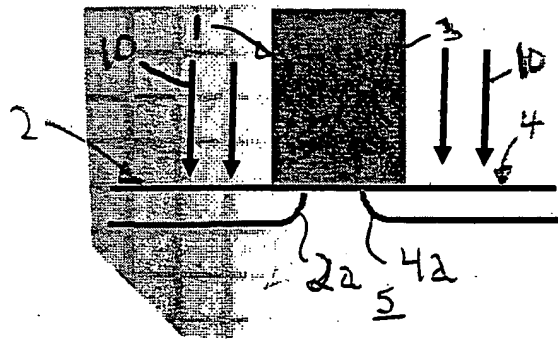


Fig. 22

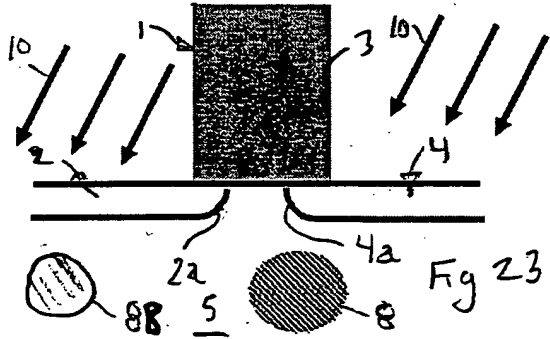


Fig. 23

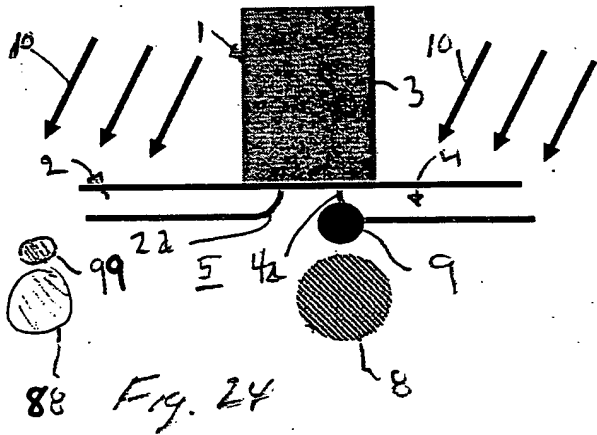


Fig. 24

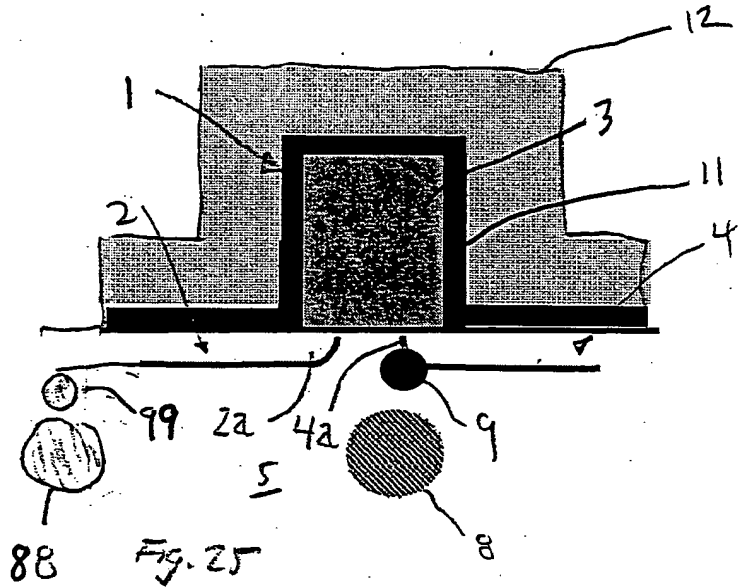


Fig. 25

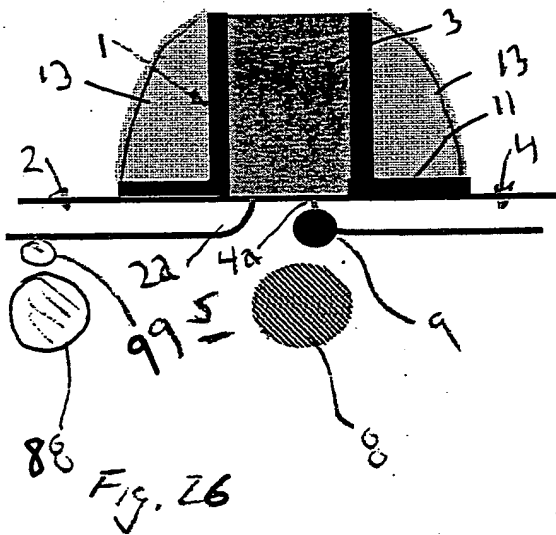


Fig. 26

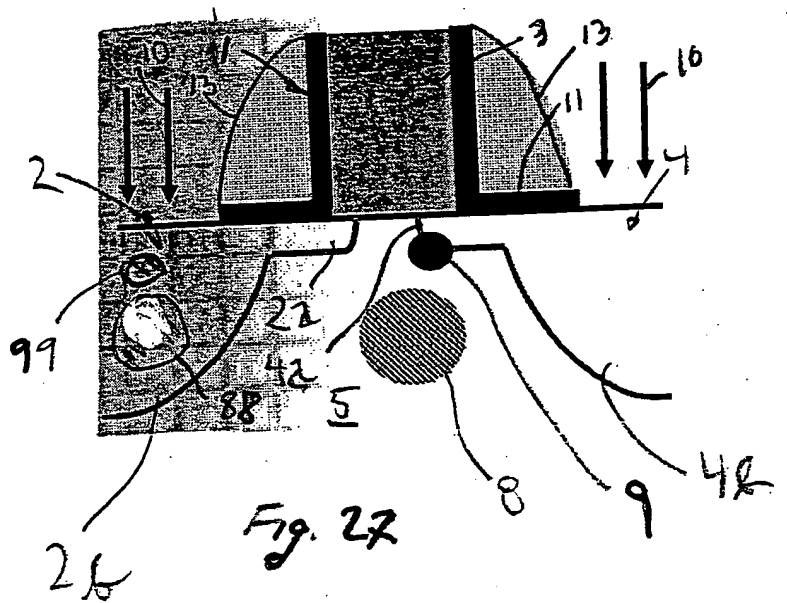


Fig. 27

Annotated Marked-Up Drawings

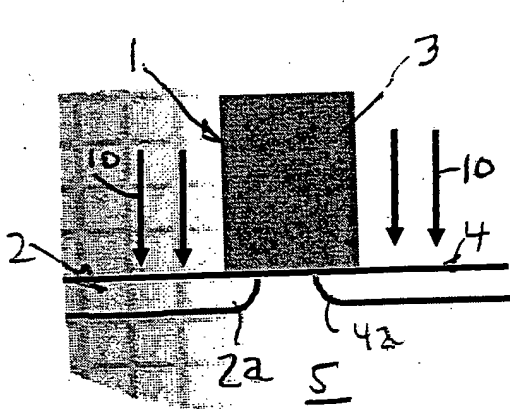


Fig. 28

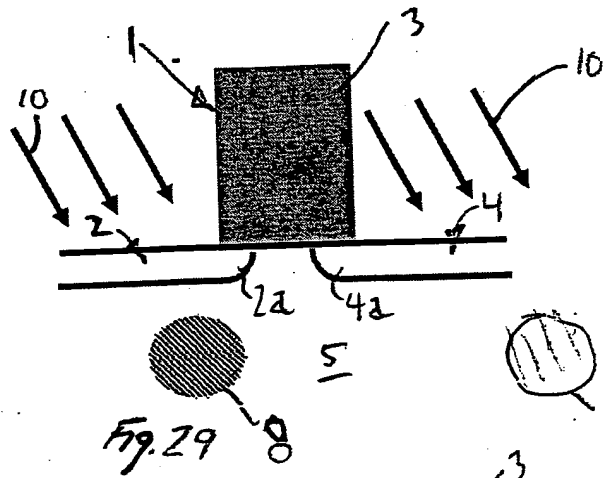


Fig. 29

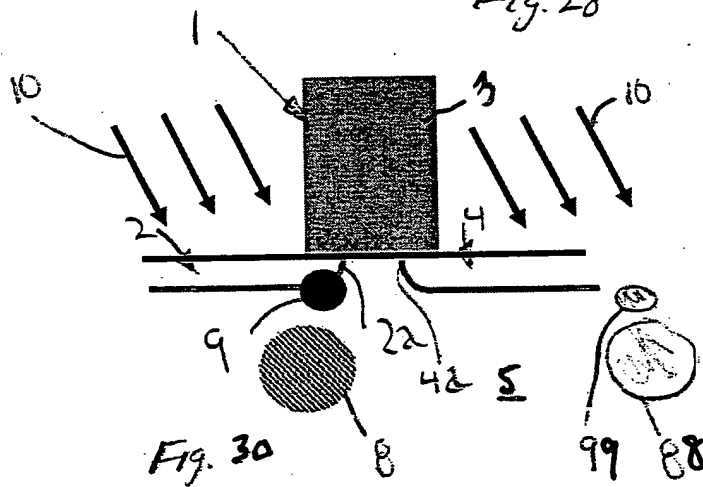


Fig. 30

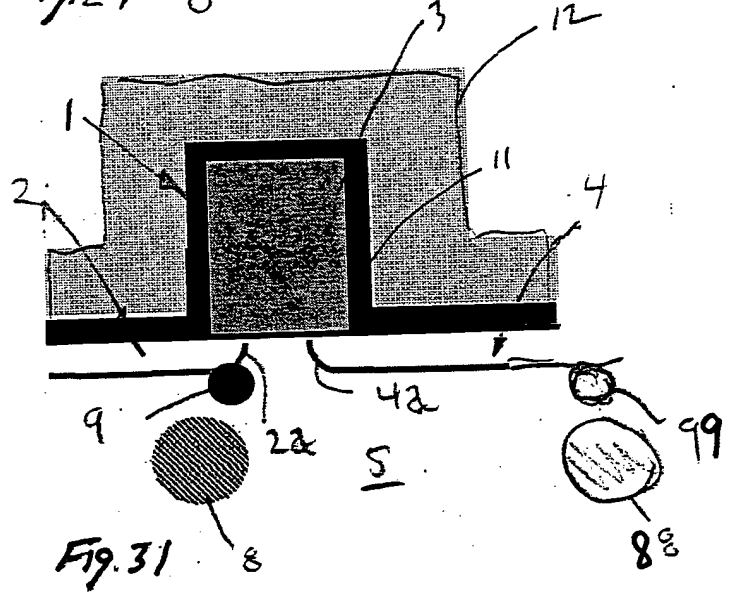


Fig. 31

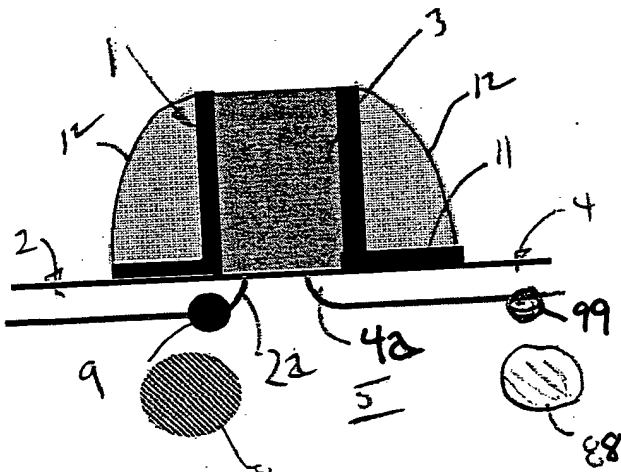


Fig. 32

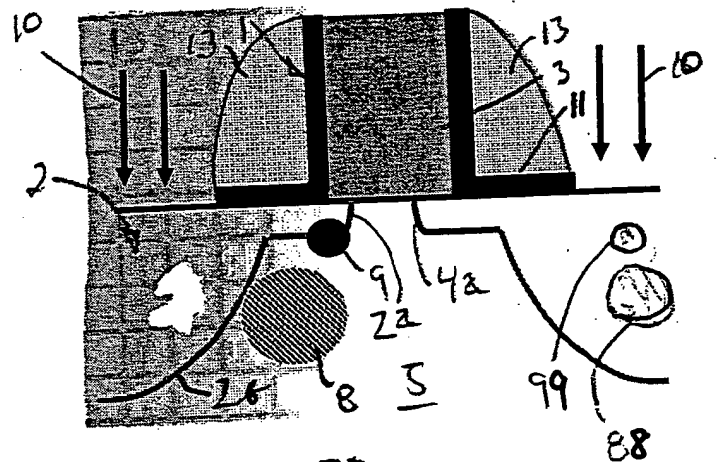


Fig. 33

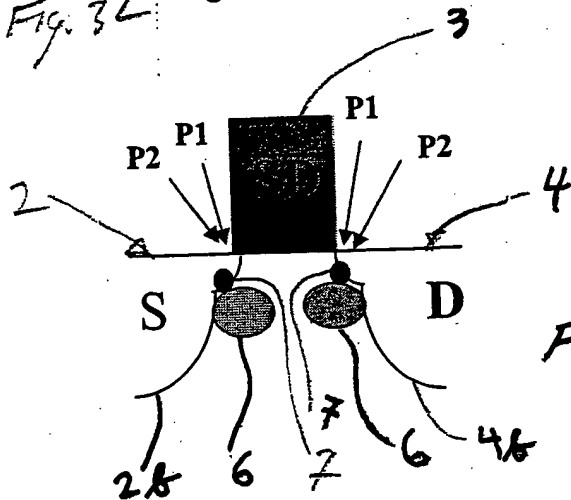


Fig. 34